

REMARKS

This is in response to the Final Office Action of November 13, 2006. Claims 1-17, 19-22, and 48-59 are pending in the present application, of which 1, 19 and 49 are independent. This response is being filed with a Request for Continued Examination.

In the Office Action, the Examiner 1) rejected claims 1-9, 13-17, 49-52 and 54-55 under 35 USC 102(b) as being anticipated by U.S. Patent No. 4,157,967 to Meyst; 2) rejected claims 1-6, 9, 13-17, 49-52 and 54-55 under 35 USC 102(b) as being anticipated by U.S. Patent No. 6,086,762 to Guala; 3) rejected claims 19-21 and 48 under 35 USC 102(b) as being anticipated by U.S. Patent No. 4,906,260 to Emheiser; 4) rejected claim 10 under 35 USC 103 as being unpatentable over Meyst '967 in view of U.S. Patent No. 4,326,957 to Rosenberg; 5) rejected claims 11-12 under 35 USC 103 as being unpatentable over Meyst '967 in view of U.S. Patent No. 5,458,719 to Pall; 6) rejected claim 22 under 35 USC 103 as being unpatentable over U.S. Patent No. 4,906,260 to Emheiser in view of Published Application 2001/0009756 to Hei.

At the outset, Applicants note that by this amendment, claim 1 has been amended to be dependent on claim 49 and claim 19 has also been amended. Also, claim 65 has been added. Support for the subject matter of claim 65 can be found, for example, in paragraph [0077], and accordingly, Applicants submit that claim 65 is not new matter.

Claims 1-9, 13-17, 49-52 and 54-55 are Not Anticipated by U.S. Patent No. 4,157,967 to Meyst

Applicants turn first to the rejection of independent claim 49 and the respective dependent claims under 35 USC 102(b) as being anticipated by U.S. Patent No.

4,157,967 to Meyst. In response, claim 49 has been amended to further distinguish over the cited references and more clearly point out the location of the liquid impermeable barrier with respect to the removal medium and the peripheral end wall of the housing.

Specifically, amended claim 49 is directed to a flow-through device for removing selected compounds from a liquid. Amended claim 49 requires, among other things, a housing comprising a pair of side walls and a peripheral end wall defining a chamber and a removal medium located within the chamber between said walls. Amended claim 49 further requires the medium including a peripheral end surface terminating interior to the peripheral end wall of said housing wherein the removal medium peripheral end is in contact with a liquid impermeable barrier and wherein said liquid impermeable barrier is located between said peripheral end surface of said removal medium and said peripheral end wall of said housing.

Applicants submit that Meyst does not teach or suggest a flow-through device as required by claim 49 for several reasons. First, Meyst does not teach a removal medium located within a chamber between side walls, the medium including a peripheral end surface terminating interior to a peripheral end wall of a housing. In contrast, Meyst describes that a stack of filter pads is pinched together along the periphery between two housing shells which serves to hold the filter in position within the housing. Specifically, integral filter unit 30 comprises a stack of filter pads, which are inserted between housing shells 14 and 16. Gripper rings 38 molded on flanges 22, 24 in shells 14 and 16 press against the filter stack 30 to provide a mechanical seal between the filter stack and the shells. Accordingly, the filter does not terminate interior

to the peripheral end wall of a housing as required by claim 49, but instead, the filter stack 30 of Meyst is gripped between and held in position by the peripheral end wall of the housing shells.

Second, Applicants submit that Meyst does not teach or suggest a flow-through device wherein a removal medium peripheral end is in contact with a liquid impermeable barrier and wherein said liquid impermeable barrier is located between said peripheral end surface of said removal medium and said peripheral end wall of said housing.

The Examiner points to a "nonporous peripheral flange" in Meyst as being a liquid impermeable barrier, however, Applicants submit that the Examiner is misconstruing the structure and function of this "peripheral flange" and submit that the liquid impermeable barrier as claimed in the present application is distinguishable for several reasons. For example, as described in further detail in the specification of the present application and as shown in the figures, examples of a liquid impermeable barrier may include a sealant introduced into the area between the medium and the housing. As seen in Figure 6, for example, gap 90 surrounds removal media (disk) 60 in the area between rings 86 and 88 and the inner surfaces of the side walls and peripheral end wall of the housing. A sealant may be injected into gap 90. Liquid bypass of removal media 60 can also be prevented by providing the disk of removal media with a pre-formed sealing ring or gasket around the perimeter of medium 60. See paragraphs [0086] through [0092].

In contrast, the "peripheral flange" in Meyst is simply the outer edge of the various layers of the filter welded to each other, which, as stated above, is pinched together along the periphery between two housing shells. Therefore, the "peripheral flange" in Meyst is not an impermeable barrier located between said peripheral end

surface of said removal medium and said peripheral end wall of said housing, but is part of the filter medium itself that extends to the periphery of the housing. Thus, for at least these reasons, claim 39 is not anticipated or made obvious by Meyst.

With respect to the Examiner's rejection of claim 1 over Meyst, Applicants submit that claim 1 has been amended to be dependent from claim 49. For the same reasons that claim 49 is not anticipated by the cited reference as described above, Applicants submit that amended claim 1 is also not anticipated by Meyst.

Claims 1-6, 9, 13-17, 49-52 and 54-55 are Not Anticipated
by U.S. Patent Number 6,086,762 to Guala

Applicants turn next to the rejection of independent claim 49 and the respective dependent claims under 35 USC 102(b) as being anticipated by U.S. Patent No. 6,086,762 to Guala.

Applicants submit that Guala does not teach or suggest a flow-through device as required by claim 49 for several reasons. First, Guala does not teach a removal medium located within a chamber between side walls, the medium including a peripheral end surface terminating interior to a peripheral end wall of a housing wherein a removal medium peripheral end is in contact with a liquid impermeable barrier as required by claim 49. In contrast, Guala describes a filtering membrane 6 extending all the way to the flanges 4 and 5 such that the membrane is interposed between annular flanges 4 and 5, and the peripheral outer edge of the membrane is mechanically clamped between corresponding front clamping surfaces of the two flanges. See col. 4, lines 9-16. Accordingly, the filtering membrane does not terminate interior to the

peripheral end wall of a housing as required by claim 49 of the present application, but instead, the membrane is gripped and pinched together by the peripheral end walls of the flanges of the connector housing. Second, Guala does not teach or suggest a flow-through device wherein a liquid impermeable barrier is located between the peripheral end surface of a removal medium and the peripheral end wall of a housing. In fact, there is no suggestion of a liquid impermeable barrier or where it would be located. Instead, Guala describes that the "peripheral edge of the membrane is not interested [sic] by the ultrasound welding, and is merely mechanically clamped between the retaining surfaces 14 and 21 of the annular flanges 4,5." See col. 5, lines 57-61. Thus, the membrane extends all the way to the edge of a housing portion where it can be clamped in place with a second housing portion and there is no teaching or suggestion in Guala of a liquid impermeable barrier located between the peripheral end surface of a removal medium and the peripheral end wall of a housing as required by claim 49. Thus, for at least these reasons claim 49 is not anticipated by Guala.

Further, as stated above, claim 1 has been amended to be dependent from claim 49. For the same reasons that the subject matter of independent claim 49 is not anticipated by Guala, claim 1 is also not anticipated or made obvious by the cited Guala patent.

Claims 19-21 and 48 are Not Anticipated
by U.S. Patent No. 4,906,260 to Emheiser

Applicants turn next to the rejection of independent claim 19 and the respective dependent claims under 35 USC 102(b) as being anticipated by U.S. Patent No.

4,906,260 to Emheiser. By this amendment, claim 19 has been amended to more clearly indicate the position of the inlet and outlet as they are oriented with respect to the housing. Specifically, amended claim 19 is directed to a flow-through device for removing selected compounds from a liquid comprising a housing having first and second sides and an interior chamber within said housing and between said sides. There is a compound removing medium disposed within said interior chamber. The housing further comprises an upper end, a lower end, and a center between said upper and lower ends. Amended claim 19 further requires an inlet port on one of said sides located between said center and said lower end of said housing, and an outlet port on the other of said sides located between said center and said upper end of said housing and diametrically opposite to the inlet port (when the housing is in its normal orientation), as described in paragraph [0073] of the published application, and shown in FIGS. 1, 2, 1A and 2A. The recited arrangement of ports is also shown in the cross-sectional view of FIG. 5.

Applicants submit that Emheiser does not disclose an orientation of inlet and outlet ports as recited in amended claim 19. Specifically, Emheiser does not disclose an inlet port on one of the sides of the housing located between the center and a lower end of the housing and an outlet port on another side of the housing located between the center and an upper end of the housing. Instead, the inlet in Emheiser is located slightly above the center point of one housing portion, while the outlet port is located on the distal tip or end of the housing. See, for example, Figure 2. Even if the embodiment shown in Figure 2 of Emheiser was turned up-side down, then the orientation of the inlet and outlet ports as required by amended claim 19 still would not be achieved —

that is, the inlet port would not be located between the center and a lower end of the housing and the outlet port would not be located between the center and an upper end of the housing as required by amended claim 19. For at least these reasons, Applicants submit that amended claim 19 is not anticipated or obvious in view of Emheiser.

Claim 10 is Not Obvious over Meyst '967 in view of U.S. Patent No. 4,326,957 to Rosenberg and Claims 11-12 are Not Obvious over Meyst '967 in view of U.S. Patent No. 5,458,719 to Pall

Applicants turn next to the rejection of claims 10-12 under 35 USC 103 as being unpatentable over U.S. Patent No. 4,157,967 to Meyst in view of U.S. Patent No. 4,326,957 to Rosenberg and U.S. Patent No. 5,458,719 to Pall. Applicants note that claims 10-12 are dependent on claim 1, which, in turn, has been amended herein to be dependent on claim 49. Accordingly, and for the reasons already stated hereinabove, claim 49 is not anticipated or obvious in view of Meyst, and therefore, claims 10-12 (which are dependent on claim 49) are also not anticipated or made obvious by the Meyst '957 patent.

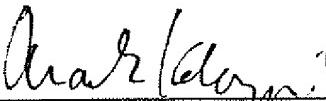
Claim 22 is Not Obvious over U.S. Patent No. 4,906,260 to Emheiser in view of Published Application 2001/0009756 to Hei

Applicants turn next to the rejection of claim 22 under 35 USC 103 as being unpatentable over U.S. Patent No. 4,906,260 to Emheiser in view of Published Application 2001/0009756 to Hei. Applicants note that claim 22 is dependent on amended claim 19. For the reasons stated above, amended claim 19 is not anticipated or made obvious by the Emheiser patent and therefore, claim 22 (which is dependent on claim 19) is also not anticipated or made obvious by the Emheiser '260 patent.

Conclusion

For the reasons set forth above, Applicants submit that the claims are not anticipated or obvious in view of the prior art, and are now in condition for allowance. Reconsideration and allowance of such claims are respectfully requested.

Respectfully submitted,



Andrew G. Kolomayets
Registration No. 33,723

COOK, ALEX, MCFARRON, MANZO,
CUMMINGS & MEHLER, LTD.
200 West Adams Street – Suite 2850
Chicago, IL 60606
(312) 236-8500